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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/883,381	06/19/2001	James Battle	108339-00070	1066
32294	7590	09/27/2005	EXAMINER	
SQUIRE, SANDERS & DEMPSEY L.L.P. 14TH FLOOR 8000 TOWERS CRESCENT TYSONS CORNER, VA 22182			LEVITAN, DMITRY	
			ART UNIT	PAPER NUMBER
			2662	

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/883,381

Applicant(s)

BATTLE ET AL.

Examiner

Dmitry Levitan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16, 18-24 and 26 is/are rejected.
- 7) ☒ Claim(s) 17 and 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### *Double Patenting*

1. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

2. Claims 19-22 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 5-8 of prior U.S. Patent No. 6,535,510. This is a double patenting rejection.

3. Claims 19-22 are directed to the same invention as that of claims 5-8 of commonly assigned 6,535,510. The issue of priority under 35 U.S.C. 102(g) and possibly 35 U.S.C. 102(f) of this single invention must be resolved.

Since the U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP § 2302), the assignee is required to state which entity is the prior inventor of the conflicting subject matter. A terminal disclaimer has no effect in this situation since the basis for refusing more than one patent is priority of invention under 35 U.S.C. 102(f) or (g) and not an extension of monopoly.

Failure to comply with this requirement will result in a holding of abandonment of this application.

*Claim Objections*

4. Claims 1-14 are objected to because of the following informalities: Claim 1 and 8 limitation: “sending a reference pointer to a first predetermined number of portions to a transaction queue” is unclear, because it is not understood who is the recipient of the reference pointer: predetermined number of portions or the transaction queue. Appropriate correction is required.

*Claim Rejections - 35 USC § 112*

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 8 limitation: “receiving a first portion of a data packet at a port on an ingress bus ring of the network switch fabric” is unclear, because it is not understood what is “an ingress bus ring”, as ingress packets enter an internal bus ring as shown on Fig. 2 of the application, will use the same ring for their exit/egress to avoid endless circulation in the ring.

Claims 1 and 8 limitation “ingress/egress module” is unclear because it is not understood if this module combines both ingress and egress functions or the module performs an egress or an ingress operation.

*Claim Rejections - 35 USC § 102*

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 15, 16, 23 and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Epps (US 6,721,316).

Regarding claims 15 and 23, Epps teaches a method and an apparatus for forwarding data in a network switch fabric (communication system on Fig. 1 and 1:31-50, comprising switching fabric 120), comprising:

Receiving an incoming data packet at a first port of the fabric (receiving a packet 113 at the receive portion on Fig. 2 and 5:11-33);

Reading a first packet portion, less than a full packet length (reading the header portion, as the headers are separated from the tail portion on Fig. 3 and 5:50-62 at the pre-process stage 420 6:28-33), to determine particular packet information, including a source address and a destination address (extracting IP destination address 11:27-30 and inherently the source address, because the header contains the source address 1:24-30 and this information is essential for the hashing operation 23:16-28) ;

Determining at least one egress port based on a lookup in a forwarding table (inherently part of the system, because packets are queued per output ports 16:45-55, based on the table lookup at stage 440 6:40-45);

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Determining a class of service for the incoming data packet based on the particular packet information (extracting CoS information from the packet header 11:26-31);

Assigning data from the incoming packet to a queue based on at least one egress port and the class of service (arranging eight queues for packets with different CoS levels 16:50-55);

Repeating the above steps for further incoming data packets and assigning data from said incoming data packets to a series of queues (inherently part of the system, because the communication system of Fig. 1 operates with multiple packets 113);

Forwarding data packets sequentially from each queue of said series of queues (forwarding the packets using modified deficit round robin method to the switch fabric interface 170 as shown on Fig. 12 and 7:39-47).

In addition, regarding claim 23, Epps teaches means for receiving the packet (Physical Interface 210 and Receive FIFO 215 on Fig. 2) and means for reading, determining, assigning and forwarding as appropriate portions pipeline switch 220 and receive buffer manager 240 on Fig. 2 (see claim 15 rejection for details).

9. Regarding claims 16 and 24, Epps teaches packing the data packets into cells having a specific cell length and assigning the packed data to the queue (outbound fabric interface module utilizes cells, wherein each cell has a specific cell length, and enqueues the packet 39:41-40:7).

### *Claim Rejections - 35 USC § 103*

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 18 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Epps.

Epps substantially teaches the limitations of claims 18 and 26, including opcode value to identify packets as unicast, multicast, broadcast or a failure (inherently part of the Ipv6 header of an IP packet 5:35-45, because the system utilizing unicast and multicast registers and flagging packets with exception/errored condition 7:49-55).

Epps does not teach opcode value to identify packets as broadcasting packets.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add opcode value to identify packets as broadcasting packets to the system of Epps to improve the system operation by including identification of a well known and used packet type as broadcasting packets, as broadcast is known as a form of multicasting.

#### *Allowable Subject Matter*

11. Claims 17 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is (571) 272-3093. The examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'DL' followed by a stylized name.

Dmitry Levitan  
Patent Examiner.  
09/26/05